

Sea Bathers Eruption

What is Sea Bather's Eruption?

Sea bather's eruption is an itchy rash, which affects the bathing suit-covered areas of the skin, rather than exposed areas, after swimming in the sea. It is caused by stings from the stinging cells of hydromedusae (the larval forms of certain jellyfishes and sea anemones). It tends to come on after the person has left the water.

What causes it?

Sea bather's eruption is caused by the body's allergic reaction to the toxin injected into the skin by the tiny stinging cells of the larval jellyfish.

These tiny organisms (the size of a speck of pepper and transparent) become trapped underneath bathing suits or in the hair of the bather. Each larva is equipped with a number of stinging cells that can be triggered by simple mechanical pressure (i.e. towelling dry), or by osmotic changes that occur with evaporation, or when rinsing off with freshwater.

The rash typically develops underneath the bathing costume. As the swimmer gets out of the sea, water drains out of the bathing suit, trapping the larva between the suit and the skin. Pressure on the small jellyfish cause the stinging cells to releasing toxin into the person's skin. Wearing bathing suits for prolonged periods after swimming, and mechanical stimulation (rubbing with a towel) make the rash worse.

Be aware that you can still be stung days or weeks later after washing and drying the affected clothing. The stinging cells are not actually alive and can persist until a particular physical or chemical reaction stimulates them to fire the stinger that contains the toxin. Thorough washing or laundering is needed.

What does it look like?

The typical rash of sea bather's eruption is shown in the photo below.



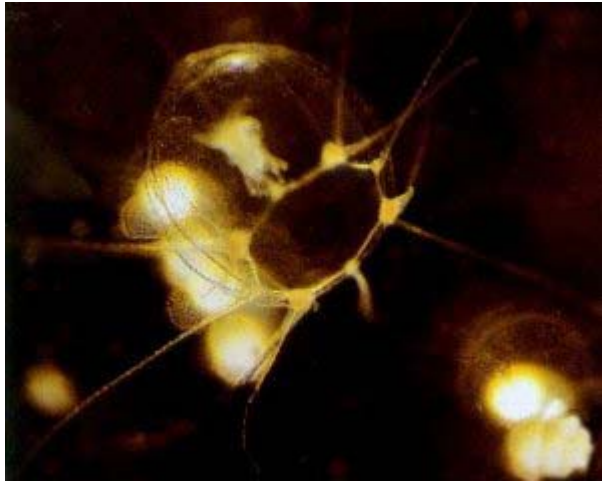
The uncomfortable rash caused by hydromedusae is most pronounced in areas where the bather's swimming costume clings to the skin, such as the buttocks and side of the torso. Source: <http://nzsm.webcentre.co.nz/article2320.htm>

Can you see them?

They can rarely be seen with the naked eye as they are extremely small (the size of a speck of pepper and transparent).

What do hydromedusae look like?

When seen under a microscope they look just like tiny jellyfish (see photo below).



Hydromedusae. Source: <http://nzsm.webcentre.co.nz/article2320.htm>

How many people have been affected?

So far (as at 08/02/2008) we have heard of 22 people affected at Takapuna beach, seven at Kohimarama and three at St Helier's. However, it is likely that many more people have been affected, but we don't hear about them because most people treat the rash at home, or by visiting a pharmacy or GP.

What are the health risks to humans from Sea Bather's Eruption?

Generally, those people affected have had an itchy rash in the bathing suit-covered areas. The rash can vary from being quite mild to being very severe and uncomfortable or even painful. It can last for as long as 2 weeks. As well as rash we have heard of children becoming more generally unwell with headaches, nausea and lethargy for several days.

Has anyone been hospitalised?

Not that we know of.

What can I do to prevent it?

The only certain way to prevent being stung is to avoid sea bathing at affected beaches, or to swim in a freshwater swimming pool instead. However, there are things people can do to reduce the risk if they choose to swim in the ocean:

- Do not wear large baggy clothes into the water (but still stay Sunsmart); smaller bathing costumes are better - because they trap fewer jellyfish – so 'Speedos' and bikinis are best, but you will need to put on extra sunblock or sun lotion to cover the larger area of skin now uncovered.
- After swimming, remove your togs as soon as possible and then shower if you can – especially the area that was covered by your togs. If there is a saltwater shower, it is best to use that. If not, a freshwater shower is better than nothing. If you can't shower naked, consider changing into a second pair of togs for public showers on beaches.
- Don't towel off before showering – this will just set off the stinging.

- Don't sit around on the beach in the togs you swam in – change into a second pair, or into shorts or something similar.
- If you develop a rash, have a shower, and get into cool clothing. Calamine lotion may help.
- If the rash persists, visit your local pharmacy – mild steroid creams like 0.5% hydrocortisone can be helpful, as can antihistamine tablets.
- If problems are severe or persist or worsen, see a doctor.
- Don't put the togs back on till laundered or washed properly, as the jellyfish can still sting even after they are dead, and you could get stung weeks later when you put your togs back on again.

Why is it better to shower in salt water?

The jellyfish are used to salt water and are less likely to sting. Washing in freshwater can make them sting. However, if this is all that is available then we recommend people take their togs off as soon as possible to remove any jellyfish attached to the togs, and then shower.

Why is this problem occurring now?

It probably occurs to some extent each summer, but it is worse when it is very warm, and the east coast beaches of Auckland seem to be affected more severely when there are north-easterly, onshore breezes, as occurs during La Nina weather patterns.

Why does the warm weather make it worse?

These jellyfish eat zooplankton which blooms in warmer weather - so the jellyfish have more food to eat. We are currently in a solid La Nina weather pattern, with onshore easterly winds and water that is 1C warmer than usual. Also, there are probably more people at the beach now because of the warmer weather, meaning more people are being exposed to the jellyfish.

When will the problem be over?

We don't know – but probably as long as the warm weather lasts. The 'stinging season' is probably from around December through till March, but it varies with weather patterns.

How do you know it isn't just sea lice?

Sea lice generally bite people on uncovered parts of their bodies. Their bites tend to be more like sandfly bites. Whereas sea bather's eruption may be made up of hundreds to thousands of little red dots (which can even join - making red patches). It is also usually on the skin under bathing costumes and often comes on over time - after the person gets out of the water.

How do they get into the swimsuits?

Through the mesh of the fabric of the swimsuits. When you get out of the water, the water washes out, but some of the jellyfish remain trapped by the fibres, and can press against the skin.

How do they sting you?

They have little stinging cells that pierce the skin and inject a toxin.

Who does it affect the most?

It generally affects children more than adults, as children are more likely to swim in the shallows and it is easier for the jellyfish to pierce their skin because it is softer. It is also more likely to affect people with sensitive skin, eczema, dermatitis or allergies.

Can't you just rinse them off the swimsuit with water?

No, they need to be actively removed from the swimsuit by laundering, and may even scrubbing with soap and water.

Do they die if you dry your swimsuit in the sun?

Yes. But unfortunately they can still sting you when they are dead. You need to remove them from the swimsuit by proper laundering and even scrubbing the swimsuit with soap and water before you put it on again.

Have GPs and pharmacies been busy with this?

Yes, especially around the East Coast beaches and Waterfront beaches, where it seems to be particularly an issue. They have seen a lot of people in the last week, and more than in recent summers.

How do I know if the water contains these tiny jellyfish?

It is very difficult to know if the jellyfish are present in the water where you want to swim. We have received reports of people being stung at Takapuna beach (which seems to have been particularly affected this summer), Kohimarama and St Helier's beaches. However, it is highly likely that they are also present at different times around other east coast Auckland beaches, and perhaps even in other parts of New Zealand. Also, the jellyfish may be present one day and absent the next. They can even be at different areas of the same beach to greater or lesser extents at the same time. This is probably related to complex weather and geographical factors.